

BOROUGH OF



BARNSLEY.

REPORT

ON THE

Sanitary Condition of Barnsley

IN 1893,

SUBMITTED TO THE TOWN COUNCIL,

BY

MICHL. THOS. SADLER, B.A., & M.D.,

LOND.,

Medical Officer of Health,

IN FEBRUARY, 1894.

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ANNUAL REPORT

TO THE

Barnsley Urban Sanitary Authority

FOR THE

Year ending December 31st, 1893.



GENTLEMEN,—The year ending December 31st, 1893 was much hotter and drier than usual, there having been fewer days of frost, more of summer heat, and 5.47 inches less rain than the average for the preceding 25 years, and though neither the heat nor the drought were as exceptional as in the South of England and in France, they were enough to have an unfavourable influence on health by necessitating a curtailed water supply for the last quarter of the year, and by raising the temperature of the subsoil which gave rise to, or was at any rate associated with, the most fatal Diarrhœa epidemic that we have ever had since 1880, followed by one of Enteric or Typhoid Fever, which caused more deaths than have ever been recorded in one year in Barnsley for upwards of 26 years. Add to this a very considerable epidemic of Scarlet Fever, and it will be seen that the year has been a disastrous one from a sanitary as well as from a commercial point of view.

The deaths registered in the Borough during the year were 880 in number, to which have to be added 7 in the Kendray Hospital amongst patients belonging to Barnsley, whilst 36 have to be deducted of persons belonging to other districts, brought into Public Institutions for treatment, leaving 851 amongst our own people, or 88 more than in the previous year, but 72 fewer than in 1891.

In estimating the probable population, I have taken as usual the number of occupied houses as a basis. During the year 186 new houses were certified for occupation, and yet there are no more unoccupied than there were in 1892, a few old ones have been pulled down in Beckett's Square and other places for street and market improvements, but as there is much overcrowding in many parts, it is not probable that these need be considered in the calculation. I have therefore taken the probable increase at five times the number of new houses occupied, viz., 930, or a little more than double the excess of births over deaths. This would make our population in 1893 to have been about 37,630, and our death-rate 22.61 for every thousand persons living, or rather higher than for 1892, but much lower than in 1891, and a little lower than the average for the preceding ten years.

The births registered having been 1,538, or the largest number yet recorded, the birth-rate on the same population was 40.87, which is so nearly that of the census year as to make it fairly certain that there is no great error in the estimate.

Of the deaths, 284 or 32.21 per cent. of the whole were amongst infants, being 18.46 per cent of the registered births. There were 428 deaths, or 48.63 per cent. of the whole, amongst children under five years of age. All these figures indicate a higher mortality than usual amongst young children, due in great measure to the deaths from Diarrhœa in the third quarter of the year.

The seven principal zymotic diseases caused 181 deaths, or 4.80 per thousand persons living, and more than one-fifth of the whole, of which 3 were from Smallpox, 39 from Measles, 20 from Scarlet Fever, 3 from Diphtheria, 4 from Whooping Cough, 36 from Enteric or Typhoid Fever, and 76 from Diarrhœa.

It will be seen that more than two-fifths of these deaths were due to the last-named disease, and there is one fact which it is well to record respecting the epidemic in Barnsley last year.

Of the 76 deaths, 5 occurred before June 21st, and 3 after September 21st, the other 68 were between those dates. Now on June 21st, the thermometer at a depth of 4 feet rose for the first time to 56° , and continued at or above it until September 21st. It reached its greatest height during the last half of August, having stood at 60° from August 19th to the 24th, and it was during the last fortnight of August that the epidemic reached its height, and 14 or 20 per cent. of the deaths were recorded.

I had a similar experience to record for 1892, but the period of high earth temperature was then only 23 days, and the highest temperature reached only 57° , so that the mortality was much less.

Just about this time it was announced that Asiatic Cholera had appeared in Grimsby, Cleethorpes, and Hull, places with which we have rapid and frequent communication, and from which Cholera was introduced into this neighbourhood in 1832. Special precautions were taken to prevent the sale of oysters and mussels from Grimsby and Cleethorpes in the district, and I had daily reports sent me of any deaths registered from Diarrhœa or similar diseases, in order that active measures might be at once commenced in case of any suspicious cases, but though there had previously been 3 deaths amongst persons between 40 and 60 years of age from the Choleraic form of Diarrhœa, and 3 also amongst people over 70, yet no others of a suspicious character were reported; the great majority were young infants, and by September 26th the epidemic had entirely ceased, leaving however behind it a very serious prevalence of Enteric or Typhoid Fever, of which I shall have to speak presently, and will only remark here that Typhoid Fever was also noted as having been especially prevalent in Hamburg, Grimsby and Hull during and after outbreaks of Asiatic Cholera.

But Diarrhœa and threatened Cholera have been by no means our only causes of anxiety during the year. In fact we have never been without a more or less serious epidemic of one sort or another to contend with.

Of diseases coming under the Notification Act, no fewer than 691 cases have been reported and dealt with during the year.

We began the year with the outbreak of Smallpox amongst the girls employed in one of our factories, mentioned in my report for 1892, which gave rise in January to 9 cases in Barnsley, besides several in adjoining Sanitary districts. Then we had 3 cases from a common lodging-house in Doncaster Road, and 3 from another in Baker Street, 3 tramps from the Workhouse, 2 who had taken the disease from visiting relations ill with it at Warrington, 3 who seemed to have taken the disease at public-houses, and finally, 2 sons of a man who has been for years employed as stoker and messenger at the hospital, never entering the wards, but occasionally helping to stove infected clothing. He was protected by re-vaccination some years ago, but his sons refused to take that precaution, and after escaping through two or three outbreaks, caught the complaint just as we were getting to the end of the last, the wife of one of them, who had formerly been a servant at the hospital, escaping because she had been re-vaccinated.

We had in all 26 cases in Barnsley, the last being in May. All were removed to the hospital except one, a very mild case, who lived in a house standing in its own grounds, where all the members of the family having been re-vaccinated, he was kept strictly isolated until all risk of infection was over.

Of the 25 cases treated in the hospital, 6 were very severe, and of these 3 proved fatal. Of these 2 had no traces of vaccination, and the third, a man of intemperate habits, had 2 infantile vaccination marks. There was only one patient who had as many as 4 vaccination marks, and she had the disease very mildly although she had been exposed to a peculiarly powerful infection at Warrington, where her sister died of the disease, shown by the fact that her husband, who did not go with her to Warrington, took the complaint

in a very virulent form apparently either from his wife's clothes or from some baby-linen which she brought home with her.

In the hospital itself no one took the complaint, though we had not only our own 25 cases to deal with, but 65 others from other sanitary districts, and had some 12 or 13 persons more or less exposed, including nurses, servants, and patients with other complaints in other parts of the building, because all, without exception, were protected by re-vaccination.

Then the Scarlet Fever, which, as I explained in my report for 1892, had got thoroughly established whilst our hospital accomodation was limited on account of Smallpox and other difficulties continued to prevail throughout the year, especially in the first seven months, 283 cases having been notified, of which only 12 were removed to the Kendray Hospital, and in the remainder we had to be content with warning the schools against receiving children from infected houses, and I may mention that in 203 of the 283 cases there were children in the houses attending one or other of the public Elementary Schools.

There were 73 cases of Diphtheria, some of them apparently connected with the Scarlet Fever epidemic, but the usual type was mild, and only 3 proved fatal. Here again all we could do was to warn the Schools attended, but the evidence in favour of infection at school was less than in the Scarlet Fever cases, as 32, or 44 per cent. of the whole were in houses in which were no children attending school at all.

Membranous Croup was notified in 6 cases, in 1 of which there was Scarlet Fever in the house, they were all young children, and 4 of these proved fatal, though in 1 the death was certified as from Diphtheria.

Puerperal Fever was notified in 9 cases, of which 5 were in November, and 5 of the cases were notified by the same medical practitioner. As however there were 4 recoveries

amongst the 9 cases, it is possible that some of them were hardly what is usually called Puerperal Fever.

There were also 63 notifications of Erysipelas, but they were mostly of a mild kind, only 4 having proved fatal, of which 3 were children.

In 4 of the houses sanitary defects were found, but as a rule there was nothing requiring interference.

But by far the most serious epidemic with which we have had to contend has been that of Typhoid or Enteric Fever, of which 234 cases were notified during the year, besides 2 cases of "continued Fever," which were pretty certainly the same disease under another name.

Of these at least 9 were brought into the Borough from other Sanitary Districts, mostly into the Workhouse or Beckett Hospital, but in 1 case where the patient was brought into a private house, 5 others followed in the same house, besides 1 next door. The remainder must be considered to have originated here, and it is of great importance to ascertain the causes which have led to this serious amount of illness. During the 26 years ending with the year 1892, for which alone I have accurate figures, there had been a steady diminution in the number of deaths from Typhoid Fever in Barnsley, proportionate to the improvement in its sanitary condition. During the first ten years (1867—1876) though the average population was only 23,000, or 14,000 less than at present, the deaths from this disease varied from 20 to 28 per annum and averaged 22. In the next ten, 1877 to 1886, though the population had risen to 30,000, the deaths from Typhoid had fallen to an average of 11. In the next six years, 1887 to 1892, though the average population was over 35,000, they had fallen to an average of 5.33, and then suddenly in 1893 they rose to 36. And this rise was mainly in the last five months of the year. There certainly had been rather more than the usual prevalence of the disease, even from January and up to the end of July there had been 7 deaths amongst 40 cases notified,

or more than in the two preceding years put together, but in August there were 21 cases, in September 45, in October 57, in November 39, and in December 28. The real epidemic then began at the time when the Diarrhœa epidemic was at its height, many of the cases were for the first week or so indistinguishable from that complaint, and probably many passed unrecognised, at any rate it was afterwards found, in several of the cases of undoubted Typhoid that there had been deaths from Diarrhœa in the houses a few weeks before. One marked feature in the outbreak was the fact that the disease showed more than the usual tendency to spread by infection. In 18 houses there were 61 cases, or more than a quarter of the whole, the number varying from 2 to 6 cases in a house. There were 124 cases, or more than half of the whole number, in the old houses in the courts and streets adjacent to Westgate, Shambles Street and New Street.

Now all, or almost all these houses were built before sanitary supervision was much thought of, and although many improvements have since been introduced, such as proper sewerage and the disconnection of the sink-drains from the sewer, yet many of them are much more crowded together than would now be permitted. The closets have nearly all been re-constructed, but they are still of the old type, often one to two or three houses, where the excreta are stored for weeks together, and frequently, for want of space, much too near the houses. Nowhere did cases arise in houses where slop-water closets had been introduced, and in only 2 were there ordinary water-closets, in both cases not quite satisfactory in some of their arrangements. The yards were in most cases not properly paved, so that they could not be properly washed down after the closets had been emptied, and the long dry season made it needful, after September 10th, to economize water as much as possible, so that the supply was cut off during the night, the sewers were rarely, if at all, flushed, and special washing out of yards, etc., by hose, discouraged. The constant supply was resumed on Jan. 15th, 1894.

Add to this that from the middle of August to the middle of November the suspension of work in the collieries

owing to a trade dispute brought serious privations to a great part of our population, so that in many cases there must have been that impairment of health and strength which makes people more susceptible to the infection of Fever. In many cases, too, there was great overcrowding, not only because the people could not afford more ample accommodation, but also because cottage houses were, as they have long been, very scarce in proportion to the number of people who need them.

Finally, in a large proportion of cases the habits of the people were far from cleanly to begin with, and however willing they might have been to adopt the precautions necessary in a disease like Typhoid Fever, in which Diarrhœa is a frequent symptom, they had not and could not procure the supply of bedding and body linen needful to keep the atmosphere of their houses in a safe condition when dealing with a disease in which the chief source of infection lies in the germs swarming in the matters passing from the patient's bowels finding their way into the systems of other persons.

It has been believed by some that the micro-organisms causing Typhoid can be developed in any fœcal matters fermenting under special conditions of temperature, especially such as prevail after a hot dry summer, others contend that only Typhoid can beget Typhoid, and possibly it may be found that there is some special kinship between the organisms producing Diarrhœa and Cholera, and that which causes Typhoid.

At any rate these are all what have been called filth diseases, and it will be seen from the account that I have given that our system of filth storage, the circumstances of our population, and the atmospheric conditions were all favourable to the multiplication of Typhoid germs, and to their finding an ample supply of persons in whom to produce their effects.

As is well known one common way in which the organisms of Typhoid find their way into the system is by polluted drink-

ing water, but there does not appear to be any reason to suppose that this has been the case here. Our supply is obtained from a reservoir with a very sparsely populated watershed, where special precautions have been taken to prevent any drainage from houses or farm yards from finding its way into the reservoir. The prevalence of Typhoid has steadily diminished ever since this particular water supply has been introduced into the town, places such as Cudworth and Royston have been taking the water all through the summer without any cases of Typhoid being reported, whilst others, such as Hoyland, which has had its water supply from other sources, have apparently suffered in a proportion, almost, if not quite, as great as our own.

It is true that we have had to take some water from the Dewsbury reservoir, but that is even less liable to pollution than our own; and it is also true that for some time our supply had to be made intermittent, instead of constant, but your engineer is certain that there is no chance of foul water finding its way into the pipes when empty, and as they have to bear constantly a considerable pressure from within without leakage, they must be fairly tight against percolation from outside.

Neither has it been possible to trace any undue proportion of cases to any particular supply of milk, or to any similar method of conveying infection. Being thus reduced to personal infection under unfavourable sanitary conditions as the main cause of the prevalence of Enteric fever in Barnsley during the last few months, until those conditions can be removed, the only thing to be done is to remove the patients, if possible, into more favourable circumstance.

But this has unfortunately been beset with serious difficulties; besides the fact that in many cases the patients or their friends objected to removal until too late, the accommodation at our disposal has been very limited.

At the Kendray Hospital we are obliged to keep one block always in reserve for Smallpox cases, and have had during the

year no less than 90 such cases from various Townships in the Union, and although we had none after May, yet with a serious prevalence of the disease in various parts of South Yorkshire not very far away, we were compelled to be always ready, and, as a matter of fact, a patient was sent in during January of the present year, and another in February.

Then there has been the prevalence of Scarlet Fever, and two of our wards have been almost constantly occupied with cases of this disease.

This only leaves eight beds available for Typhoid, without serious crowding, and to illustrate one of the dangers of overcrowding fever cases I may mention that during one week, when we had an unusual number of severe cases, the water supply became seriously diminished through leakage from a main in an adjoining township, so that the soiled linen could not be disinfected as promptly as usual; during that week one of our nurses contracted the disease.

Then we had other Townships besides our own to provide for, and Typhoid cases of the worst kind, such as were many of ours, often require treatment for many weeks, so that we were only able to admit in all 18 cases from Barnsley. Besides these the Beckett Hospital was able to take 16, and 4, being paupers, were sent to the Workhouse Infirmary.

As far as possible those cases were selected for Hospital treatment which were in the least favourable sanitary condition at home, but the large majority who had to be treated at home included many who would have been far better away, both for their own sakes, and for the benefit of their neighbours.

This want of more room in the Kendray Hospital has for some time being complained of by the contributory Sanitary Authorities, who often have not been able to get their cases of Typhoid Fever admitted. They are willing to bear their share of the cost of enlargement, and the Corporation of Barnsley is anxious to enlarge. Several plans have been sent up to the Local Government Board, but in vain, the objection being that one block is used for the reception of cases of Smallpox.

It is certainly unsafe to treat cases of Smallpox and those suffering from other diseases even in separate blocks if they are administered from one central administrative block, unless the patients are protected by re-vaccination every time a case of Smallpox is brought in. There is of course a certain amount of inconvenience in this, but there has hitherto been no difficulty here in carrying out this precaution, which, under our present circumstances, is indispensable, and the only question is how we can alter them. For we cannot discontinue to take cases of Smallpox until another place is provided for them, and those who remember the difficulty with which we secured our present site, will know that it must be years before another is available. When a new Smallpox Hospital has been built it will probably stand empty for months or years together.

If a permanent staff of nurses is provided, they will get demoralised from having nothing to do. If there is no such staff, when an epidemic comes there will be no one to attend properly to the cases.

We have asked the Local Government Board to allow us to fence off the present Smallpox block, providing it with a sufficient administrative department of its own, with laundry and other out-buildings, and a separate entrance in another road, and proposed, in case of an out-break of Smallpox, to detach a special staff of nurses and servants to take charge of the cases, keeping them entirely isolated from the other departments as long as there were cases to treat.

This scheme I have submitted to the County Medical Officer, and he approves of it as the best that can be devised under the circumstances, but as no answer has been received from the Local Government Board, it is to be presumed that they do not care to take the responsibility of giving it their sanction.

The legacy under the will of the late Mrs. Lambert, the generous donor of the Hospital, of £2,000 for the purpose of its extension, will, however, render the raising of a loan un-

necessary, and it will be for you to consider in due course, how the money can be spent to the best advantage.

Even those who were doubtful at first must now be convinced of the value of the Hospital to the town and district. Each year the number of patients admitted increases; from 48 in 1891 to 94 in 1892, and 151 (including one or two taken in for quarantine) last year, of which 96 were from other sanitary districts; and the number would have been much larger if there had been more room. Amongst them there have been 14 deaths, not a large proportion considering the severe nature of many of the cases. Of these, 6 were from Smallpox, 7 from Typhoid Fever, and 1 from Scarlet Fever. The strain on the staff has often been severe, and we have found it needful to increase the number of nurses, but have found it rather difficult to get suitable candidates. From the nature of the diseases treated, the patients have hitherto not been able to benefit by the kindly interest taken by so many charitable people in the other hospitals in the district, although besides being very ill many of the patients are also very poor, and unfortunately, sometimes of a rough class also, and therefore not always easy to manage. Many of them are without sufficient clothing, and it has often been difficult to supply them with what was needful both in the Hospital and when they were discharged. Hearing of our difficulties, Lady Harriet Wentworth has recently presented us with a very handsome supply of clothing and materials of various kinds, and probably in time others will remember us also.

The matron who has with great energy helped us through the difficulties of the last 5 or 6 years, is leaving us in April, but a successor has been found who will, I hope, continue worthily the good work, and, I trust, that the hospital will continue to increase in popularity and usefulness.

The new special wards in connection with the Smallpox block have been nearly finished, but unfortunately the work had to be stopped before the last coat of plaster could be put on, because two cases of Smallpox were sent in from Royston,

but I hope that the interruption will not be a long one. The alterations and additions previously made to the other parts of the Hospital have added much to its efficiency, and I am sure that the same will be true of the new Smallpox wards.

Besides the removal of patients to the Hospital, and the warning of schools, there has been much else to be done in connection with infectious diseases, such as the disinfecting of bedding, clothing, and houses, and also of books from the Free Library when there were any found in the infected houses.

The Inspector furnishes the Librarian with a list of these houses as he receives them each morning from me, and if there are any library books in them, those books are at once called in, and not allowed to circulate again until they have been disinfected.

Besides the work in connection with infectious diseases, the ordinary inspections, etc., have been carried on as usual, and the results reported at your monthly meetings.

During the year 152 notices have been served for the abatement of nuisances of various kinds, and legal proceedings taken in 5 cases, of which 2 were for smoke nuisances, 1 for bad meat, and 2 for adulterated milk. Amongst other things there have been 32 old privies altered, and 6 rebuilt, in 13 cases waste-water closets have been substituted for privies on old property, 19 carcasses of sheep, calves, or pigs, have been destroyed as unfit for food, and also 96 rabbits.

In 32 cases the notices have been on account of defective sink-traps and pipes, in 24 for defective drainage, in 12 for overcrowding, and 1 house has been closed as unfit for habitation.

Under the Factory Act of 1891, supervision has been exercised over the sanitary condition of 119 workshops, and 4 of the notices have been for overcrowding or neglect of whitewashing in some of these workshops.

During the year new sewers have been laid in Chiltern Street, Henschel Street, Upper Sykes Street, Harbro' Hills Road, and Smithies Lane, being a total length of 280 yards.

There are still 21 cesspools in the Borough, receiving the sewage of 75 houses, most of them in the Honeywell estate.

In November I laid before your Committee a special report on the prevalence of Enteric Fever, the substance of which is embodied in my present report, and I have only to add that experience up to the present time confirms the opinion which I expressed then as on former occasions, that our ash-pit system is the great blot on our sanitary arrangements, and that until it has been replaced throughout by a waste-water or some other water-carriage system, it is only too likely that Typhoid Fever which is still prevalent will from time to time give serious trouble.

We have now 220 waste-water closets in the town, many of them have been working for some years, and so far as I can ascertain they have given complete satisfaction. Besides not increasing the consumption of water or the bulk of the sewage, they have the advantage of not getting frozen up in winter, which is often a source of trouble in ordinary water-closets inside houses, and would be still more likely to happen outside cottages.

They are now insisted on in new houses wherever practicable, and we are gradually getting them introduced in place of the old ash-pits, where a gross nuisance arises from the present arrangement, but our progress in that direction is rather slow, only 13 having been so substituted during the past year. Now, however, that the old ashpits have shown themselves such a means of spreading disease we shall have to proceed more rapidly. And I am convinced that when water carriage becomes the rule instead of the exception, we shall find a great improvement in the health of the Borough, especially in such seasons as that we have just passed through.

Except in Typhoid Fever, which continued prevalent into the present year, there was at the end of 1893 a decided improvement in the sanitary condition of the town, the death-rate for the last two or three months had been lower than at any time during the year, the cases of Scarlet Fever were much less numerous, and usually of a mild type, Diphtheria was rarely reported, and the cases were mostly of a slight description, and there had been no deaths from Measles for four months, or from Whooping Cough for two months.

Influenza was rather prevalent but of a less severe kind than in 1892, and the deaths from lung affections acute and chronic were less numerous than usual in the winter, the temperature having been milder than usual for the time of the year, whilst a fairly abundant fall of rain had flushed our sewers and restored our supply of water to its ordinary condition of abundance. Even in Typhoid there are decided indications of an abatement in the number and severity of the cases, so that we may fairly hope that next year a more favourable report may be possible than that which I now lay before you.

I am, gentlemen,

Yours obediently,

MICH. THOS. SADLER, M.D., LOND.,

Medical Officer of Health.

Barnsley, February 13th, 1894.

TABLE I.

Estimated Population and number of Births and Deaths in the Borough of Barnsley in the Years 1884 to 1893 inclusive, the number of deaths being corrected by deducting those in Public Institutions belonging to other Sanitary Districts, and adding those in the Kendray Hospital belonging to Barnsley.

YEAR.	POPULATION.	BIRTHS.	DEATHS.
1893	37630	1538	851
1892	36700	1446	763
1891	35427	1447	923
1890	34610	1295	746
1889	33545	1208	705
1888	32500	1204	701
1887	32000	1203	723
1886	31500	1126	818
1885	31000	1193	679
1884	31000	1269	794

TABLE II.

Annual Birth-rate and Death-rate, Death-rates amongst Children and Infants, and Proportion of Deaths in Public Institutions, in Barnsley, in the ten years 1884 to 1893 inclusive.

YEAR	Annual Rate of Deaths per 1000 persons living.	Annual Rate of Births per 1000 Persons living.	Percentage of Deaths under one year to total Deaths	Percentage of Deaths under one year to total Births	Percentage of Deaths under five years to total Deaths	Percentage of Deaths in Public Institutions.
1893	22·61	40·87	32·21	18·46	48·63	10·56
1892	20·79	39·12	29·62	16·59	42·59	15·18
1891	26·05	40·84	31·02	20·45	49·79	10·37
1890	21·26	37·41	29·80	18·06	43·18	14·01
1889	21·04	36·95	27·92	17·38	47·07	9·07
1888	21·56	37·10	29·70	18·43	48·32	13·78
1887	22·59	37·59	27·23	17·95	41·23	16·77
1886	29·14	35·77	27·03	20·69	48·72	12·41
1885	21·9	38·48	22·58	14·83	38·77	9·38
1884	25·61	40·93	25·59	16·94	50·83	12·73
Average for 10 yrs. 1883-1892.	23·34	38·45	28·18	18·04	45·92	12·23

TABLE III.

Causes of Death at different ages in the Borough of Barnsley,
in the year 1893.

DISEASES.	Under 1 year	1—2	2—5	5—10	10—20	20—30	30—40	40—50	50—60	60—70	70—80	80—90	Totals.
Scarlet Fever.....	3	0	4										19
Measles	5	15	1										39
Whooping Cough.....	2	2	3										4
Fever (Enteric).....	2	2	0		4		4	2	1	2			33
Diphtheria and Malignant Sore Throat.		3											3
Diarrhea	52	10			1		1	4	2	4	2		76
Croup and Laryngitis.....	1	1	2										4
Gangrene					4	2			1				1
Puerperal Septicæmia.....													6
Erysipelas	2	1					1						4
Pyæmia	1												1
Influenza					1	3			1	2			7
Syphilis	3				1								3
Acute Rheumatism.....					1					1			2
Dropsy					1								1
Cancer	13	4	4		4	12	2	3	5	6			16
Phthisis								10	10	4			84
Marasmus Atrophy.....	19	2											21
Abscess.....			1										2
Diseases of the Nervous System	65	11	12	4	4	2	3	4	5	11	14	1	138
Digestive	7	1		2	4	3	1	3	3	2	2	1	27
" Urinary & Generative System	1	1	2				4	4	5				21
Heart.....	1	1			2	6	9	6	9	16	5		54
Bronchitis, Pneumonia & Pleurisy.....	39	28	10	5	3	5	8	17	15	10	23	5	169
Asthma.....													1
Ulceration of Trachea.....							1	1					1
Diabetes													1
Intemperance.....					1	1							3
Aneurism					1								1
Childbirth													2
Premature Birth & Congenital Debility	54												54
Old age											11	11	26
Injuries	9	1			3	8	4		3	2	2		36
Debility from want of Food.....													1
Imperfectly described	4	2	1								2	1	16
TOTALS	282	82	64	24	29	50	63	62	64	66	68	23	880

TABLE IV.

Showing the Mortality from certain classes of Disease and the proportion of that Mortality to the estimated population, and to each 1000 deaths, in the year 1893.

Class of Disease.	Total Deaths.	Death per 1000 Persons living	Proportion of Deaths to each 1000 Deaths.
Seven principal Zymotic Diseases	181	4.80	205.63
Pleurisy, Bronchitis, and Pneumonia	169	4.49	192.04
Phthisis	84	2.23	95.45

TABLE V.

Showing the number of Deaths from each of the Seven Principal Zymotic Diseases in the ten years 1883 to 1893, omitting cases from other Sanitary Districts, but including deaths from Barnsley in the Kendray Hospital.

Diseases.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	Average for 10 years.	Proportion per 1000 deaths in Ten Years.	1893	Proportion per 1000 Deaths in 1893.	Proportion per 1000 Population in 1893.
Small-Pox.....	1			1		2					0.6	.74	3	3.40	0.079
Measles	45	5	7	46	3	62	8	1	78	6	26.1	32.55	39	44.31	1.036
Scarlet Fever...	9	120	53	48	57	16	8	2	9	9	32.1	40.03	20	22.72	0.531
Diphtheria.....	2	2	1	5	5	5	15	23	9	3	7.0	8.73	3	3.40	0.079
Whooping Cough	15	14	18	32	9	2	30	9	34	21	18.4	22.95	4	4.54	0.108
Enteric Fever...	9	6	12	10	10	6	3	7	3	3	6.9	8.60	36	40.90	0.956
Diarrhœa	29	60	25	53	47	23	34	32	22	28	35.3	44.04	76	86.36	2.019
Totals	110	287	116	195	131	116	98	74	155	72	126.4	157.64	181	205.63	4.808

TABLE VI.

New Cases of Infectious Diseases notified during each month of 1893, classified according to Diseases and Ages.

	Scarlet Fever.	Diphtheria.	Membranous Group.	Enteric Fever and Continued Fever.	Puerperal Fever.	Erysipelas.	Small Pox.	Cases removed from their homes to				
								Small Pox.	Kendray Hospital.	Enteric Fever.	Beckett Hospital.	Work-house.
JANUARY—												
Under 5 Years ..	9		3	1		1						
5 upwards ..	23	2		3	1	7	18	17				
FEBRUARY—												
Under 5 Years ..	7	2		1		1						
5 upwards ..	11	8		7		3	3	3	2			
MARCH—												
Under 5 Years ..	13		1			1						
5 upwards ..	18	2		1	2	6	3	3				
APRIL—												
Under 5 Years ..	22	2		1								
5 upwards ..	33	4		1		2						
MAY—												
Under 5 Years ..	20								2			
5 upwards ..	21	15		7		4	2	2	1		1	1
JUNE—												
Under 5 Years ..	9			3		2					1	
5 upwards ..	19	4		7	1	5			1		1	
JULY—												
Under 5 Years ..	10		1	1								
6 upwards ..	15	4		7					1			
AUGUST—												
Under 5 Years ..	7					1						
5 upwards ..	10	1		21		2			3	2	4	2
SEPTEMBER—												
Under 5 Years ..	2			5		1						
5 upwards ..	6	11		46		5			1	4	1	
OCTOBER—												
Under 5 Years ..	3		1	10		1						
5 upwards ..	5	12		7		5			1	4	2	1
NOVEMBER—												
Under 5 Years ..	1			5		1				1		
5 upwards ..	6	3		34	5	12				2	6	
DECEMBER—												
Under 5 Years ..	3			3								
5 upwards ..	10	2		25		3				5		
TOTALS												
Under 5 ..	106	4	6	30		9			2	1	1	
5 upwards ..	177	69		206	9	54	26	25	10	17	15	4

TABLE VII,

Births Registered and Number of Deaths from various causes in each month of the year 1893.

1893.	Births.	Deaths	Deaths under 12 months.	Scarlet Fever.	Diphtheria.	Croup.	Enteric Fever.	Diarrhœa.	Measles.	Whooping Cough.	Bronchitis, &c.	Influenza.	Plithisis.	Public Institutions.
January.....	154	81	22		1		1		1	2	31		11	10
February.....	102	59	9		2				2		10	1	8	6
March.....	135	75	17	3		1	2	1	7		16	1	5	6
April.....	151	76	17	5					7	1	17		11	7
May.....	122	90	23	1			1	3	13		17		9	11
June.....	136	75	30	3			1	8	4		11		7	8
July.....	130	84	42	1		1	2	27	2		12		5	7
August.....	101	96	40	1			5	20	3		10		9	8
September.....	133	74	33	2			6	17			10		6	8
October.....	134	61	22	1		1	8			1	12		5	7
November.....	134	48	13	2			1				10	1	5	6
December....	106	61	16				6				13	1	3	9

TABLE VIII.

Temperature and Rainfall in Barnsley in 1893.

Month.	Maximum.	Minimum.	Days on which 50° was reached.	Days on which 70° was reached.	Days of Frost.	Days on which rain fell.	Amount in Inches.
January ..	49°	21°			12	17	1·39
February ..	55°	26°	2		9	21	2·76
March ..	62°	28°	22		3	6	·42
April ..	71°	35°	23	3		4	·62
May ..	74°	39°	31	4		11	2·37
June ..	83°	45°	30	12		11	1·36
July ..	83°	50°	31	13		21	3·20
August ..	84°	49°	31	18		16	2·05
September..	72°	40°	30	2		12	·93
October ..	67°	29°	28		1	13	1·62
November..	55°	28°	6		10	20	1·94
December..	51°	23°	2		6	17	3·13
Totals ...			241	52	41	169	21·79
Average for previous 20 yrs:			218·7	37·7	55·3	191·1	27·268

TABLE IX.

SANITARY WORK DURING THE YEAR 1893.

Notices issued for the Sanitary Amendment of Houses			
	and Premises ...	...	149
„	„ Smoke Nuisances...	...	14
„	remaining over from 1892 ...	...	4
„	abated without legal proceedings	...	126
„	in hand, December 31st, 1893	...	21
Cases in which legal proceedings were taken ...			
Viz. :—2 Smoke Nuisances, 2 Milk Adulterations,			
1 Bad Meat.			
Defective Sink-pipes and Traps ...			
Waste-water Closets substituted for Privies			
Privies altered ...			
„	pulled down	...	10
„	rebuilt	...	6
Infectious Cases reported and visited ...			
Admitted to Kendray Hospital from all Districts			
Viz. :—Smallpox ...			
Enteric Fever ...			
Scarlet Fever ...			
Carcases of Pigs, Sheep and Beasts inspected			
„	„	„ ordered to be destroyed	19
Rabbits ordered to be destroyed ..			
Samples of Food taken for Analysis...			
House closed as unfit for occupation			
Notices under Factory and Workshops Act ...			
Number of Workshops inspected ...			

